

Background Materials – July 14, 2025 – Planning Board Meeting

Prepared by Anne Capra, Director of Planning and Conservation, 7/11/25

Cable Access Channel 15 –The Cable Studio has indicated that this meeting will be live streamed on Channel 15.

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<https://www.southhadley.org/1274/Agenda-Background-Materials>

AGENDA ITEM #1 Open Comment Period

This 10-minute period is set aside for the public to offer comments on items not on the posted agenda, in accordance with the adopted policy, as amended 9/11/23, posted on the Town of South Hadley Planning and Conservation Department webpage here:

<https://www.southhadley.org/DocumentCenter/View/11705/Policy-on-Open-Comment-Period---As-Adopted-2023-09-11>

Action Needed: Allow members of the public to offer comments to the Board.

AGENDA ITEM #2 Minutes

Planning and Conservation Coordinator Colleen Canning will forward minutes separately.

Action Needed: Vote to approve the minutes.

AGENDA ITEM #3 Correspondence

Correspondence is attached.

Action Needed: No action needed.

AGENDA ITEM #4 Discussion Route 202/33 Corridor Re-Zoning Recommendations

Re-Zoning Recommendations Memo:

<https://www.southhadley.org/DocumentCenter/View/14071/Route-20233-Corridor-Zoning-Recommendation-Memo-4302025>

Re-Zoning Districts Map: <https://www.southhadley.org/DocumentCenter/View/13888/Draft-Corridor-Zoning-Map-332025>

The purpose of this agenda item is for the Board to begin discussing the details of the following:

- Recommended new zoning districts (Residential Core and Residential Mixed Use)
- Recommended allowed/prohibited uses within those zoning districts
- Recommended new zoning overlay district (Route 202/33 Corridor Design Guidelines Overlay District).

The Director of Planning and Conservation will give an overview presentation on this material to begin the Board's discussion of this matter. A separate public listening session about this material is scheduled for 7/28/25 at 6:30 PM, at which the public is invited to share their thoughts and ask questions.

Action Needed: The Board should begin discussion on the recommended new zoning district delineations, allowed/prohibited uses, and the design guidelines overlay district.

AGENDA ITEM #5 Discussion on Draft Report on Agricultural Uses Zoning Bylaw Amendments

Draft report and amendments online: <https://www.southhadley.org/1318/ProposedDraft-Bylaws>

Agricultural Uses

- [Agricultural Uses Review and Analysis Report - January 2025](#)
- [Proposed Amendments to 255-10 - Terms Defined 5.20.25](#)
- [Proposed Amendments to 255-24 Accessory Uses and Buildings and 255-41 Outdoor Recreation Facilities 5.20.25](#)
- [Proposed Amendments to 255-25 Agricultural, Horticultural and Floricultural Uses 5.20.25](#)
- [Proposed Amendments to 255-26 Stables and Riding Academies 5.20.25](#)
- [Use Schedule Proposed Amendments - Agricultural Uses - 6.3.25](#)

The Director of Planning and Conservation will give a presentation about the purposes of the amendments, the analyses report of the existing bylaws, and the proposed amendments. If time allows, the Board will begin discussion on this matter.

Action Needed: The Board may begin discussion on the purposes of the proposed amendments and then begin review and discussion of the proposed amendments.

AGENDA ITEM #6 Discussion on Draft Report on Sign Bylaw Amendments

Draft report and amendments online: <https://www.southhadley.org/1318/ProposedDraft-Bylaws>

Sign Bylaw

- [Report on Sign Bylaw Review and Analysis - January 2025](#)
- [Proposed Zoning Bylaw Amendments - Signs - 5.20.25](#)
- [Sign Bylaw Amendment - Proposed Dimensional Standards](#)

The Director of Planning and Conservation will give a presentation about the purposes of the amendments, the analyses report of the existing bylaws, and the proposed amendments. If time allows, the Board will begin discussion on this matter.

Action Needed: The Board may begin discussion on the purposes of the proposed amendments and then begin review and discussion of the proposed amendments.

AGENDA ITEM #7 Planning & Conservation Department Report on Planning Projects and Development Updates

A. Next Planning Board Meetings and Other Important Dates

Planning Board typically meets the 2nd and 4th Mondays of the month.

7/28	<ul style="list-style-type: none"> • 88 Willimansett Street Special Permit – Public Hearing Continuation • Route 202/33 Corridor Re-Zoning Draft Zoning and Design Guidelines– Public Listening Session • Curb cut bylaw/policy
8/11	<ul style="list-style-type: none"> • East Street - Flexible Development Special Permit – <i>PENDING</i> • 506 Granby Road – Multifamily Site Plan Review – <i>PENDING</i> • 11 Brockway Lane SPR – Detached ADU - <i>PENDING</i> • Route 202/33 Corridor Re-Zoning Draft Zoning and Design Guidelines – Board discussion/final edits • Open Space and Recreation Plan 10-year Action Plan Review
8/25	<ul style="list-style-type: none"> • Agricultural Uses Zoning Bylaw Amendments – Board discussion draft report • Sign Bylaw Amendments – Board discussion draft report
9/8	<ul style="list-style-type: none"> • Route 202/33 Zoning Public Hearing - (Special November Town Meeting Warrant)
9/22	<ul style="list-style-type: none"> • Route 202/33 Zoning – Final Edits & Draft Report to Town Meeting • Agricultural Uses Zoning Bylaw Amendments – Public Hearing • Sign Bylaw Amendments – Public Hearing
10/6 <i>Columbus Day</i> <i>10/13</i>	<ul style="list-style-type: none"> • Route 22/33 Zoning – Approve Report to Town Meeting • Agricultural Uses Zoning Bylaw Amendments – Final Edits & Draft Report to Town Meeting • Sign Bylaw Amendments – Final Edits & Draft Report to Town Meeting
10/20	<ul style="list-style-type: none"> • Agricultural Uses Zoning Bylaw Amendments – Approve Report to Town Meeting • Sign Bylaw Amendments – Approve Report to Town Meeting • Subdivision Regulations Public Hearing
November 5th	Special Fall Town Meeting

AGENDA ITEM #8 Other New Business (topics which the Chair could not reasonably expect to be discussed/considered as of the date of this notice)

No additional business has been submitted to me as of the date of this notice.

**SOUTH HADLEY PLANNING BOARD
LIST OF CORRESPONDENCES
JULY 14, 2025 REGULAR MEETING**

Letters and Memos

- July 1 notice from the Pioneer Valley Planning Commission reading regional assessments for the fiscal period from July 1, 2025 through June 20, 2026.
- July 8 letter (attached) with attachment from the South Hadley Sustainability and Energy Commission indicating support for the Geothermal Energy Center/Geothermal Hub previously proposed by Mount Holyoke College for 9 Woodbridge Street.

Legal Notices

Amherst

- Notice from the Amherst Planning Board for a public hearing on July 16 to consider modifications to a previously issued Site Plan Approval for a mixed-use building to allow 6th floor height increase and to allow increase of 30 dwelling units for development at 5 University Drive.

Chicopee

- Notice from the Chicopee Planning Board for a public hearing on July 3 to consider a zoning change from Business A to Residential A for property on Prospect Street to allow construction of a single family home.
- Notice from the Chicopee Planning Board for filing decision of approval for waving frontage requirements to subdivide property at 34 Wildermere and create a new reduced size single family building lot and leave existing home on a reduced size lot.

Granby

- Notice from the Granby Planning Board for filing a decision of approval for Site Plan Review for construction of eight garage bays to be used to store business equipment at 119 West State Street.

Hadley

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Holyoke

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To: Members of the Board of Health
From: Members of the Sustainability and Energy Commission
Re: Mt. Holyoke Geothermal project

The Sustainability and Energy Commission is tasked with promoting energy efficiency and helping the town to guard against the effects of climate change. It is therefore part of our core mission to weigh in on the geothermal Energy Center/Geothermal Hub proposed by Mount Holyoke College for 9 Woodbridge Street. We are strongly in support of the project. We would like to explain why as well as provide helpful information that may dispel misconceptions about the project's impacts.

First, we would like to recognize that residents living near the college have understandable concerns about the building proposed for the Woodbridge Street site. Their concerns about changes to the environment they live in every day are real and should be addressed. Our position on these concerns, and our reasons for endorsing the project, are as follows.

1. **The project is not a power plant.** Abutters and other residents have expressed concerns over what they describe as a "power plant." One resident described it as an "industrial operation." We believe that this description in the media and conversations is leading to mistaken ideas about what the building will house. The geothermal hub will not produce power except in rare outages and, in fact, will take its electrical power from SHELD.

Our ideas about energy infrastructure come from what we are familiar with. A conventional power plant burns fossil fuels to turn water into steam which, in turn, drives turbines that generate electricity. In our homes and businesses, we combust fossil fuels to heat our homes more directly. Our boilers and furnaces are mini power plants, in a way!

Residents are correct to think of power plants as polluting, and this is also true of Mt. Holyoke's current heating system. The combustion of fossil fuels is never 100% efficient, and in older boilers uncombusted fuel is released along with the combustion products carbon dioxide, carbon monoxide, smog-causing nitrogen oxides, disease-causing fine particulate matter, and more. "Natural" gas (methane) itself contains 21 hazardous pollutants, including cancer-causing benzene and formaldehyde (details [here](#) and [here](#)). Ultra-efficient gas and oil boilers hover around 90% efficiency. Older boilers can have efficiency levels as low as 60%. Mt. Holyoke has been polluting the local and global air for many years to keep its students warm during the winter, *as have the rest of us*. They are now in the process of replacing their 100-year-old system with the single most advanced and efficient technology available for heating buildings: geothermal heat pumps. Moreover, they are making this switch in exactly the way that energy experts advise: upgrading a system for efficiency when the old one reaches its end-of-life. Area residents will be exposed to far fewer hazardous chemicals after the project is completed, not more.

2. **How the system works.** Heat pumps work by capturing and releasing environmental heat. Our refrigerators and air conditioners are heat pumps. Heat pumps circulate a fluid, absorbing and then releasing heat in a cycle. Many people heat their homes with heat pumps that capture heat from air. The system to be built at the College is a geothermal system that is more efficient than an air-source heat pump because it takes advantage of the stable temperatures underground and the heat-holding capacity of soil and rock. A set of pipes containing water plus a small amount of antifreeze captures heat from underground in the winter and releases that heat into buildings. In the summer, the fluid is cooled when it travels underground. The Mt. Holyoke

system contains an additional and ingenious feature in which heat captured in the summer can be stored and used for heating when winter returns.

Geothermal systems are long-lasting, with the underground components having a 20-year lifespan. They run on electricity, which in South Hadley is low-emission because most of our electricity is generated by nuclear power. These systems are extremely efficient, producing between three and five units of heat energy for one unit of electricity. If that sounds like it violates the Law of Conservation of Energy, it does not. The heat gained in the system is obtained from the environment, not from releasing energy trapped in the chemical bonds of molecules, as we do when we combust fuels for heat. More information can be obtained [here](#).

- 3. Concerns about possible remaining contamination at the site.** Some concerns have been voiced because the site, once a gas station, was contaminated with petroleum products some years ago. 21 years ago contaminated soil was removed and the Massachusetts Department of Environmental Protection declared that the remediation had achieved a “permanent solution.” Residents present at the meeting expressed concern over the possibility that contamination might extend deeper than the ten-foot depth that was remediated. The construction process will not disturb soil at that depth, with an anticipated maximum depth of footings of six feet.

The College has taken steps to assure that gases seeping from soil do not enter the building or the surrounding air. The building itself will have a vapor barrier. In addition, it will be built over an 8-inch thick concrete pad. Beneath the pad, there will be a 12-inch thick gravel bed vented with a pipe that will extend above the height of the building. The engineering firm has recommended that the soil beneath the gravel bed be “densified” (compacted) to increase its load-bearing properties. The compacted soil and concrete pad together are barriers to migration of gases from the soil below the ten-foot depth that was remediated. The content of gases vented from the pipe will be monitored, in any case. If hydrocarbons from the site are detected, the College will install an activated charcoal filter. This information comes from the presentation at the meeting and the engineering report filed with the state [here](#).

Many have also asked why the college has chosen this site rather than other land it owns. We would like to point out that there are a number of constraints on the location. The building must be located in a place that is accessible to the underground system as well as near the buildings it heats. We hope that town residents and board members are able to understand that siting of the building must be a decision that was made after considerable thought.

- 4. Noise pollution.** Will the pumps in the Energy Center be noisy? The College’s engineering firm measured ambient sound, the noise that would be experienced without additional traffic noise and fire sirens. They also used a computer model to estimate noise levels in the rare event that all equipment is operating at once. The results showed that in the worst-case scenarios, noise levels would be 45 - 50 decibels in the immediate vicinity of some buildings. The College presented a useful chart to help us compare that level of sound to things we are familiar with. A resident asked if noise is “additive.” Does noise add in the same way that one cup of water plus three cups equals four cups? The answer is no, partly of the complicated nature of sound and partly because decibels are on a log scale. The calculator at [this site](#) yields surprising answers. If you add 80 decibels, which one of us measured at 80 decibels on Woodbridge Street to 40 additional decibels, the answer is (drumroll please) ... 80! This is because the added sound has a value closer to zero than to one. This means that the added noise

A second and important point is that the physics of sound is extremely complicated and difficult to understand. Sound also has emotional and psychological connotations. Sound is moving air (or any fluid!) that travels in waves that are somewhat similar to the ripples in a pool of water when you throw a stone in it. Sound moves differently through different substances, absorbed by some and reflected off of others. Multiple sources of sound will interact with each other. This [site](#), if you care to look, will give you a glimpse of some of the equations used to calculate sound energy. It is impossible to predict what will happen in a real-life situation without even more complex computer models of the sort used by the College's consultants. One good way to understand decibel levels is to look at the chart of real-life examples of sound similar to the one that the College displayed. 30 decibels is described as the rustling of leaves, and 40 as average home noise. 60 decibels is the level of sound we experience in a normal conversation. Any of us can try the following experiment: find a friend or business that has a heat pump, stand near it, and then walk away and see how far the sound "carries" to the point where you can still hear it. We measured sound levels on that stretch of 116 at noon and got a reading of 80 decibels. We think it unlikely that heat pumps in the Energy Center will be audible over the rest of the noise in the area.

5. **Design:** We heard considerable concern about the building's modern design at the meeting. We are not experts in art or architecture, but we would like to note that human creativity and problem-solving are things we celebrate. We believe that the best art is art that makes you think. We were moved by Carla Youngblood's statement that the College wanted a building that would be an emblem of the marvelous ingenuity within its walls. If the world were to transition quickly away from polluting sources of energy, many lives would be saved. We think that's with celebrating. We would also like to remind residents that the building is small, with a [5200 square-foot footprint](#). That is a wall length of 72 feet if the building is a square.

Lastly, we would like to say that the College's commitment to spend considerable time and other resources on this geothermal system is an act of commitment, responsibility, and loving concern for the young people who walk its campus. A 2025 [paper](#) in the preeminent science journal Nature lists the "unprecedented" exposures that those young now face: heat waves, crop shortages, extreme weather, floods, and wildfires are likely to mark their lives. The authors concluded "Our results call for deep and sustained greenhouse gas emissions reductions to lower the burden of climate change on current young generations." Mt. Holyoke has decided to act more decisively than our governments and than most of us.

We were saddened when we heard that the College has withdrawn its site plan and will phase in the geothermal system more slowly. We sincerely hope that the decision was not motivated, in whole or in part, by the opposition that has arisen against the project. It may be true that the College should have involved the public earlier. We hope that, to some small degree, we have been useful in bringing facts to bear that may change minds. We would like to note that research on perception risks and hazards shows that people are more comfortable with known and familiar risks than with risks that they are unfamiliar with (reference [here](#)). The Mt. Holyoke geothermal project replaces the very large and familiar risk posed by the use of polluting and climate-destroying fossil fuels to heat a campus with the unknown risks associated with a site contaminated with those very same fossil fuels. We have grown accustomed to destroying our climate and to breathing fossil fuel combustion products and uncombusted fossil fuels. The result has been catastrophic for our health and for the life support systems on which we all depend for our very existence.

SEC position on Mt. Holyoke Geothermal System

URL links

“The combustion of fossil fuels is never 100% efficient, and in older boilers uncombusted fuel is released along with the combustion products carbon dioxide, carbon monoxide, smog-causing nitrogen oxides, disease-causing fine particulate matter, and more. “Natural” gas (methane) itself contains 21 hazardous pollutants, including cancer-causing benzene and formaldehyde (details [here](#) and [here](#)).”

<https://www.lung.org/getmedia/da394c1a-200e-4c89-9947-7ecb1a26571a/The-Health-Impact-of-Combustion-in-Homes.pdf>

<https://hsph.harvard.edu/climate-health-c-change/news/natural-gas-used-in-homes-contains-hazardous-air-pollutants/>

“The heat gained in the system is obtained from the environment, not from releasing energy trapped in the chemical bonds of molecules, as we do when we combust fuels for heat. More information can be obtained [here](#).”

<https://www.southhadley.org/DocumentCenter/View/14007/MHC-Energy-Center---Geotechnical-Report>

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https://www.noisemeters.com/apps/db-calculator/?srsId=AfmBOorrGy5NAVmOhu8k1V3ZV8AT3mxxUGcW2n_5fJA19WqSEI54IJaG

“Multiple sources of sound will interact with each other. This [site](#), if you care to look, will give you a glimpse of some of the equations used to calculate sound energy.”

<https://blog.exair.com/2020/09/03/how-to-add-sound-levels-to-calculate-total-decibels-of-noise/>

“We would also like to remind residents that the building is small, with a [5200 square- foot footprint](#).”

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<https://pmc.ncbi.nlm.nih.gov/articles/PMC3096944/>